MULTIMEDIA UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

**TRIMESTER 3, 2018/2019**

## DMG5024 – MANAGEMENT ACCOUNTING 2

( All sections / Groups )

31 MAY 2019
9.00 a.m. to 12.00 p.m.
( 3 Hours )

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**INSTRUCTION TO STUDENTS**

1. This question paper consists of **5** pages with 5 questions.
2. Answer **ALL** questions.
3. Write your answers in the answer booklet provided.

## QUESTION 1

### Part A

Vera Manufacturing has recently started to manufacture V12, a racing car toy. The company is considering whether to produce the wheels of V12 internally or source from outside supplier. The cost structure to manufacture 24,000 wheels is as follows.

| | |
|---|---|
| Direct materials | RM144,000 |
| Direct labour | 96,000 |
| Variable overhead | 72,000 |
| Fixed overhead | 120,000 |
| **Total cost** | **RM432,000** |
| **Cost per unit** | **RM18** |

An outside supplier has offered to make the wheels for RM16 per unit.

**Instructions**

(a) Using incremental analysis, determine whether Vera Manufacturing should accept this offer under each of the following independent assumptions:

(i) Assume that RM65,000 of the fixed overhead can be avoided. (8 marks)

(ii) Assume that none of the fixed overhead can be avoided. However, if the wheels are purchased, Vera can use the released productive resources to generate additional income of RM80,000. (4.5 marks)

(b) State one qualitative factor that should be considered in a make-or-buy decision. (1 mark)

### Part B

Metta Store has two departments, Groceries and Household. The company's most recent monthly contribution format of Statement of Comprehensive Income is as follows:

| | Groceries | Household | Total |
|---|---|---|---|
| Sales | RM1,800,000 | RM600,000 | RM2,400,000 |
| Variable expenses | 540,000 | 240,000 | 780,000 |
| Contribution margin | 1,260,000 | 360,000 | 1,620,000 |
| Fixed expenses | 550,000 | 480,000 | 1,030,000 |
| **Net income (loss)** | **RM710,000** | **(RM120,000)** | **RM590,000** |

A study reveals that 30% of the fixed expenses being charged to Household Department will still continue even if the department is dropped.

**Continued...**

**Instructions**

(a) Should Metta Store eliminate the Household Department? Why? (5 marks)

(b) If Household Department is dropped, how much net income would the company report for the month? (1.5 marks)

**[TOTAL 20 MARKS]**

## QUESTION 2

### Part A

In a competitive product environment, the price of a product is set by the market. However, in a less competitive environment, companies have a greater ability to set the product price. These companies are called the price setters.

**Instruction**

State any **TWO (2)** characteristics of a price setter. (2 marks)

### Part B

Dynamic Space rents shared working space in two-hour blocks. Each session includes the use of the working space including facilities such as computers, fax machine, photocopier, wi-fi connection and stationery. Anticipated annual volume is 1,000 sessions. The company has invested RM1,200,000 in the working space and expects a return on investment (ROI) of 30%. Budgeted costs for the coming year are as follows.

| | |
|---|---|
| Direct material cost | RM15 per session |
| Direct labour cost | RM100 per session |
| Variable overhead | RM42 per session |
| Variable selling and administrative expenses | RM28 per session |
| Fixed overhead | RM700,000 per year |
| Fixed selling and administrative expenses | RM450,000 per year |

**Instructions**

(a) Compute each of the following under the **variable-cost** approach:
   (i) Markup percentage needed to provide the desired ROI. (8.5 marks)
   (ii) Target rental fee per session. *(Round up to the nearest ringgit)* (2 marks)

(b) Assume that Dynamic Space wishes to increase its return on investment (ROI) to 40%, compute each of the following under the **absorption-cost** approach:
   (i) Markup percentage needed to provide the new desired ROI. (5.5 marks)
   (ii) Target rental fee per session. *(Round up to the nearest ringgit)* (2 marks)

**[TOTAL 20 MARKS]**

**Continued...**

## QUESTION 3

### Part A

WL Aluminium has two service departments, Maintenance and Personnel. The company allocates Maintenance costs based on budgeted maintenance hours, and Personnel costs based on number of employees to two of its operating departments, Plant A and Plant B. Below are data collected for June 2019.

| | Service Departments | | Operating Departments | |
|---|---|---|---|---|
| | **Maintenance** | **Personnel** | **Plant A** | **Plant B** |
| Departmental costs before allocation | RM300,000 | RM120,000 | RM150,000 | RM210,000 |
| Maintenance hours | - | 800 | 1,200 | 400 |
| Number of employees | 25 | - | 200 | 300 |

**Instructions**

(a) Using the step-down method, allocate the service department costs to the operating departments. Allocate Maintenance Department costs first. (6.5 marks)

(b) If the company had used the direct method instead, calculate the Personnel costs allocated to Plant A and Plant B. (2 marks)

### Part B

Ling Manufacturing processes cocoa beans into cocoa powder and cocoa butter. In June, the company processed 10,000 kg of cocoa beans into 6,000 kg of cocoa powder and 4,000 kg of cocoa butter at a cost of RM56,000.

Cocoa powder can be sold at split-off point for RM8 per kg, or processed further into cocoa mint and sold for RM14 per kg *(without gain or loss in volume)*. Additional processing cost was RM21,000. There was no beginning inventory and ending inventory of cocoa mint was 200 kg.

Cocoa butter can be sold at split-off point for RM15 per kg, or processed further into chocolate and sold for RM25 per kg *(without gain or loss in volume)*. Additional processing cost was RM24,000. There was no beginning inventory and ending inventory of chocolate was 400 kg.

**Instruction**

Calculate Ling Manufacturing's gross margin percentage for cocoa mint and chocolate when joint costs are allocated using the physical measure at split-off method.

(11.5 marks)

**[TOTAL 20 MARKS]**

**Continued...**

## QUESTION 4

Krisna Manufacturing makes and sells a special tool named MU12. The accountant provided the following information for 2019.

| | Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|
| Budgeted sales units | 3,000 | 4,000 | 5,000 | 6,000 |
| Budgeted selling price | RM40 | Expected to increase 15% | Same as Q2 | Expected to increase 10% |

- **Ending raw materials inventory**: 40% of the next quarter's production requirements
- **Ending finished goods inventory**: 30% of the next quarter's expected sales units
- **Raw materials required**: 0.6 liters to make each unit of finished goods
- **Cost of raw materials purchased:** RM15 per liter
- **Direct labour hours:** 1.5 hours per unit of finished goods
- **Direct labour wages:** RM8 per hour

**Instruction**

Prepare the following budgets by quarters for the six-month period ended 30 June 2019:

(a) Sales budget (4 marks)

(b) Production budget (4.5 marks)

(c) Direct materials budget (8 marks)

(d) Direct labour budget (3.5 marks)

**[TOTAL 20 MARKS]**

## QUESTION 5

### Part A

SFS Manufacturing makes two products, Topaz and Jade. Data regarding the two products are as follows.

| | Topaz | Jade |
|---|---|---|
| Annual production | 10,000 units | 20,000 units |
| Direct material per unit | RM30 | RM15 |
| Direct labour hour per unit | 0.8 hour | 0.4 hour |
| Direct labour wage rate per hour | RM15 | RM15 |

**Continued...**

The company's activity-based costing system has four activity cost pools as listed below.

| Activity Cost Pool | Cost Drivers | Estimated Overhead (RM) | Cost Drivers by Product | |
|---|---|---|---|---|
| | | | Topaz | Jade |
| Purchasing | Orders | 125,000 | 425 | 200 |
| Machine Setups | Setups | 72,000 | 100 | 300 |
| Machining | Machine hours | 180,000 | 3,500 | 1,500 |
| Testing | Inspections | 36,000 | 750 | 450 |

Recently, SFS Manufacturing received an order for 200 units of Topaz. The usage of cost drivers for the order are: 8 purchase orders; 2 machine setups; 70 machine hours and 11 inspections.

**Instructions**

(a) Compute the overhead rates using the activity-based approach. (6 marks)

(b) Compute the manufacturing cost for each unit of Topaz. (4 marks)

**Part B**

Elyona Manufacturing produces one product called AY5. The company uses a standard cost system and estimated 8,000 units would be produced in May. The company has established the following material and labour standards to produce one unit of AY5.

| Standard Data | |
|---|---|
| • Materials | 3 kg @ RM12 per kg |
| • Labour | 2 hours @ RM14 per hour |

During May 2019, the following activity was recorded by the company relating to the production of AY5:

- 8,200 units of AY5 were produced.
- Actual direct materials purchased was 25,500 kg for RM311,100.
- Direct materials used in production was 24,000 kg.
- Actual direct labour costs were RM231,200 for 17,000 direct labour hours worked.

**Instructions**

(a) Calculate the material price variance. (2.5 marks)
(b) Calculate the material quantity variance. (2.5 marks)
(c) Calculate the labour price variance. (2.5 marks)
(d) Calculate the labour quantity variance. (2.5 marks)

**[TOTAL 20 MARKS]**

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